
ठोस कीटनाशकों की पैकेजिंग के लिए कोड
(1 000 ग्राम तक)

(दूसरा पुनरीक्षण)

Code for Packaging of Solid
Insecticides (up to 1 000g)

(Second Revision)

ICS 83.080

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FOREWORD

This Indian Standard (Second Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Plastics Packaging Sectional Committee had been approved by the Petroleum, Coal and Related Products Division Council.

This Indian Standard was originally published in 1972 and subsequently revised in 1991. This revision has been undertaken to update the cross-referred standards and to update the retail pack requirement.

The composition of the Committee responsible for the formulation of this standard is given in Annex B.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 2022 'Rules for rounding off numerical values (*second revision*)'. The number of significant places retained in the rounded off value shall be the same as that of the specified value in this standard.

Indian Standard

CODE FOR PACKAGING OF SOLID INSECTICIDES

(UP TO 1 000 g)

(*Second Revision*)

1 SCOPE

This standard prescribes the requirements for packaging of solid pesticides in the form of powder in retail packs weighing not more than 1 000 g.

2 REFERENCES

The standards listed in Annex A contain provisions which, through reference in this text, constitute provision of this standard. At the time of publication, the edition indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent edition of these standards.

3 TERMINOLOGY

For the purpose of this standard, the definitions given in IS 7019 and IS 2828 shall apply.

4 REQUIREMENTS

4.1 Retail Pack

4.1.1 The pesticides in the powder form shall be packed in polyethylene bags having film thickness not less than 0.062 mm and their mouths heat-sealed and then packed in secondary pack individually as detailed in 4.2. Polyethylene used for the packaging shall conform to IS 7328.

4.1.2 Retail packs for water dispersible powder concentrates like zineb and mancozeb which require extra protection against moisture permeation may be of tri-laminate pouch constituting 50 gsm kraft paper/0.009 mm aluminium foil/0.0375 mm low density polyethylene (LDPE)/linear low-density polyethylene (LLDPE), their mouths heat-sealed and then packed in secondary pack individually as detailed in 4.2.

4.2 Secondary Pack

4.2.1 Retail packs up to 500 g shall be packed in a carton made from paper board of grammage not

less than 190 gsm when tested in accordance with IS 1060 (Part 5/Sec 5).

4.2.2 Secondary packs for 1 000 g packs shall be packed into 3 ply corrugated fiberboard cartons with E flute and of the following ply construction:

Outer ply	240 gsm duplex boards
Fluting medium	80 gsm kraft paper
Inner face	80 gsm kraft paper

4.2.3 The secondary pack shall be closed by firmly gluing overlapping flaps or by securely closing tuck-in type flaps. It should then be closed by 20 mm wide pressure sensitive plastic/cello tape or 50 mm paper tape.

4.2.4 The boxes (exterior transport containers) so packed shall be subjected to drop test from a height of 1.2 m as per IS 7028 (Part 4). The boxes shall not show any sign of damage or shifting of powder from it.

4.3 Transport Pack

4.3.1 Cartons as in 4.2 shall be snugly packed in corrugated fiberboard box or wooden case for the purpose of transport and distribution. The corrugated fiberboard box and wooden case shall conform to 4.3.2 and 4.3.3 respectively.

4.3.2 Corrugated Fiberboard Box

4.3.2.1 The box shall be made from 5 ply corrugated fiberboard (A or B flute) conforming to IS 2771 (Part 1) and style 202 of IS 6481.

4.3.2.2 The grammage of the liner and corrugated medium of the board shall not be less than 150 gsm when tested in accordance with IS 1060 (Part 5/Sec 5).

4.3.2.3 The gross mass of corrugated fiberboard box with the contents shall not exceed 30 kg.

4.3.2.4 The bursting strength of the corrugated fiberboard box when tested in accordance with IS 1060 (Part 7/Sec 1) shall not be less than 12 kgf/cm².

4.3.3 Wooden Case

4.3.3.1 The wooden packing case shall conform to the class and style specified in IS 1503 appropriate to the mass of contents as in **4.3.3.2**.

4.3.3.2 The gross mass of the wooden case with the contents shall not exceed 35 kg.

5 CLOSING OF THE TRANSPORT PACK

5.1 Corrugated Fiberboard Box

The corrugated fiberboard box shall be closed either by gluing or by stapling. The lines of meet of the outer flaps shall be sealed by 50 mm wide glued paper tape or 50 mm wide plastic/cello tape.

5.2 Wooden Case

The top of the case shall be fixed by nailing to the ends of the case. The nails shall not be more than 75 mm apart. The case shall finally be reinforced by 2 numbers of mild steel straps along the girth. Strappings made of plastics (PP, nylon or polyester, etc) may also be used.

6 PACKING AND MARKING

Each bag and carton shall be packed and marked in accordance with the provisions made under chapter V 'Packing and labelling' of the *Central Insecticides Rules, 1971* framed under the powers of *Central Insecticides Act, 1968*.

ANNEX A

(Clause 2)

LIST OF REFERRED STANDARDS

<i>IS No.</i>	<i>Title</i>	<i>IS No.</i>	<i>Title</i>
IS 1060	Methods of sampling and test for paper and allied products:	IS 2828 : 2019/ ISO 472 : 2013	Plastics — Vocabulary (<i>second revision</i>)
(Part 5/Sec 5) : 2021/ ISO 536 : 2019	Methods of test for paper and board, Section 5 Determination of grammage (<i>first revision</i>)	IS 6481 : 1971	Guide for principal uses and styles of fibre board containers
(Part 7/Sec 1) : 2014/ ISO 2759 : 2001	Methods of test for board, Section 1 Determination of bursting strength of board	IS 7019 : 1998	Glossary of terms in plastics and flexible packaging, excluding paper (<i>second revision</i>)
IS 1503 : 1988	Specification for wooden packing cases (<i>third revision</i>)	IS 7028 (Part 4) : 1987	Performance tests for complete, filled transport packages: Part 4 Vertical impact drop test (<i>first revision</i>)
IS 2771 (Part 1) : 2022	Corrugated fiberboard boxes — Specification: Part 1 General requirements (<i>third revision</i>)	IS 7328 : 2020	Specification for polyethylene material for moulding and extrusion (<i>third revision</i>)

ANNEX B*(Foreword)***COMMITTEE COMPOSITION**

Plastics Packaging Sectional Committee, PCD 21

<i>Organization</i>	<i>Representative(s)</i>
Indian Institute of Packaging, Mumbai	DR BABU RAO GUDURI (<i>Chairperson</i>)
All India Food Processors Association, (AIFPA), New Delhi	SHRI MOHIT CHAUDHARY
All India Plastics Manufacturers Association (AIPMA), Mumbai	SHRI KAILASH B. MURARKA SHRI KISHORE SAMPAT (<i>Alternate</i>)
Bisleri International Pvt Ltd, New Delhi	SHRI K. GANESH SHRIMATI SALONI CHADHA (<i>Alternate</i>)
Central Institute of Plastics Engineering & Technology (CIPET), Chennai	DR S. N. YADAV DR SMITA MOHANTY (<i>Alternate</i>)
Chemco Plastic Industries Private Ltd, Mumbai	SHRI GAURAV SARAOGI SHRIMATI SRUPANDE SAMPAT (<i>Alternate</i>)
Chemicals & Petrochemicals Manufacturers Association, New Delhi	SHRI UDAY CHAND DR KANAK B. DAS (<i>Alternate</i>)
Coca-Cola India, Gurugram	SHRI VIRENDRA LANDGE SHRI RAJENDRA DOBRIYA (<i>Alternate</i>)
Confederation of Indian Food Trade & Industry (FICCI), New Delhi	SHRI MANOJ MEHTA
CSIR - Central Food Technological Research Institute (CFTRI), Mysuru	SHRI RAJESHWAR MATCHE DR ARUN KUMAR P. SELVAM (<i>Alternate</i>)
CSIR- Indian Institute of Toxicology Research, Lucknow	DR V. P. SHARMA DR A. B. PANT (<i>Alternate</i>)
Essel Propack Limited, Vasind	SHRI HARIHARAN K. DR GURUNATH (<i>Alternate</i>)
Federation of Indian Packaged Drinking Water Manufacturers Association (FIPMA), Mumbai	SHRI APURVA DOSHI
Food Safety and Standards Authority of India, New Delhi	SHRI B. S. ACHARYA SHRI HARISH KUMAR (<i>Alternate</i>)
Foundation for Innovative Packaging and Sustainability (FIPS), Mumbai	SHRI M. K. BANERJEE

<i>Organization</i>	<i>Representative(s)</i>
Gas Authority of India Ltd, (GAIL), Noida	SHRI MANISH KHANDELWAL SHRI NITIN GUPTA (<i>Alternate</i>)
Haldia Petrochemicals, Kolkata	SHRI RAJ K. DATTA SHRI SRIKANTH RAMANI (<i>Alternate</i>)
HPCL - Mittal Energy Limited (HMEL), Noida	SHRI VINEET K. GUPTA SHRI ALAKESH GHOSH (<i>Alternate</i>)
Indian Centre for Plastics in the Environment (ICPE), Mumbai	SHRI T. K. BANDOPADHYAY
Indian Oil Corporation Limited (IOCL), R&D, Faridabad	SHRI DHANANJAY SAHOO SHRI SUMIT BASU (<i>Alternate I</i>) SHRI PONNUSWAMY K. (<i>Alternate II</i>)
IIT Roorkee-Saharanpur Campus, Roorkee	DR YUVRAJ SINGH NEGI
Ministry of Food Processing Industries, New Delhi	SHRI ANAND KISHORE
National Association for Feeders and Nipples Industries (NAFNI), Mumbai	SHRI HARISH SHROFF SHRI ASHOK ANEJA (<i>Alternate</i>)
National Dairy Development Board, Anand	SHRI P. K. PUNDIR SHRI S. K. GOSWAMI (<i>Alternate</i>)
Nestle India Ltd, New Delhi	SHRIMATI SARITA DEVI
PET Packaging Association for Clean Environment (PACE), New Delhi	DR VIJAY HABBU SHRI PANKAJ UPPAL (<i>Alternate</i>)
Pigeon India, Grater Noida	SHRIMATI SIMPLE BAJAJ SHRIMATI SNEHA GUPTA (<i>Alternate</i>)
Reliance Industries Ltd, Mumbai	SHRI S. V. RAJU DR SHREERAM WADEKAR (<i>Alternate I</i>) DR SUNIL MAHAJAN (<i>Alternate II</i>)
Shriram Institute for Industrial Research, New Delhi	SHRI N. A. HASHMI DR A. K. TYAGI (<i>Alternate</i>)
Skypack India Pvt Ltd, Faridabad	SHRI NAVEEN TALWAR SHRI JAGBIR SINGH (<i>Alternate</i>)
Sumitomo Chemical India Ltd, Mumbai erstwhile Excel Crop, Mumbai	SHRI PRASAD GHATE
Sun Pharmaceutical Industries Ltd (Sun Pharma) Gurugram	SHRI SHANTANU CHOWDHARY
Uflex, Noida	SHRI RAHUL DUBEY SHRI JEEVRAJ PILLAI (<i>Alternate</i>)

<i>Organization</i>	<i>Representative(s)</i>
Voluntary Organization in Interest of Consumer Education (VOICE), New Delhi	SHRI M. A. U. KHAN SHRI H. WADHWA (<i>Alternate</i>)
BIS Directorate General	SHRIMATI MEENAL PASSI, SCIENTIST 'F'/SENIOR DIRECTOR AND HEAD (PETROLEUM, COAL AND RELATED PRODUCTS) [REPRESENTING DIRECTOR GENERAL (<i>Ex-officio</i>)]

Member Secretary
MS ANMOL AGARWAL
SCIENTIST 'B'/ASSISTANT DIRECTOR
(PETROLEUM, COAL AND RELATED PRODUCTS), BIS

Bureau of Indian Standards

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